

SILIN, N.A.; KOBERNIK, S. G.; ASAULENKO, I.A.

Investigation of the operation of the 1000-80 hydraulic pipe-line
dredge and the 900 millimeter diameter spoil pipe. Izv. Inst.
gidrol. i gidr. AN URSS no.14:54-65 '56. (MLRA 9:12)

(Dredging machinery)

SILIN, M.O.; KOBERNIK, S.G.

Determination of the motion parameters of a water-earth
mixture in pressure pipes. Dop. AN URSR no.2:141-144
'57.

(MLRA 10:5)

1. Institut gidrologii ta gidrotekhniki AN URSR. Predstaviv
akademik AN URSR G.I. Sukhomel.
(Hydrodynamics)

SOV/21-58-2-14/28

AUTHORS: Silin, N.A., Kobernik, S.G. and Asaulenko, I.A.

TITLE: Head Losses During the Motion of Water and Water-Solid Mixture in Large Diameter Conduits (Poteri napora pri dvizhenii vody i vodogruntovoy smesi v truboprovodakh bol'shikh diametrov)

PERIODICAL: Dopovidi Akademii nauk Ukrain's'koi RSR, 1958, Nr 2, pp 175-177 (USSR)

ABSTRACT: The authors present the results of investigations conducted from 1954 to 1956 to determine head losses in large-diameter conduits. The investigations were carried out on pressure conduits of the earth suction dredges, which delivered water-solid mixture into the earth dams of the Kakhovka and Kremenchug Hydroelectric Power Plants. The pipes were of the following diameters: 900, 800 and 614 mm. The authors present numerical data in tabulated form and in graphical form as curves expressing the values of head losses plotted versus the velocity, the diameters of the conduits and the specific weight of the water-solid mixture. There are 4

Card 1/2

Head Losses During the Motion of Water and Water-Solid Mixture in Large
Diameter Conduits

SOV/21-58-2-14/28

graphs, 1 table and 5 Soviet references.

ASSOCIATION: Institut gidrologii i gidrotekhniki AN UkrSSR (Institute of
Hydrology and Hydraulic Engineering of the AS UkrSSR)

PRESENTED: By Member of the AS UkrSSR, G.I. Sukhomel

SUBMITTED: May 16, 1957

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration

Card 2/2

SILIN, N.A. [Silin, M.O.], kand.tekhn.nauk; KOBERNIK, S.G. [Kobernik, S.H.];
inzh.

Measuring the discharge of a water-soil mixture with Venturi tubes.
Visti Inst.gidrol.i gidr.AN UFSR 18:68-75 '61. (MIRA 15:3)
(Venture tubes) (Hydraulic conveying)

SILIN, Nikolay Aleksandrovich; KOBERNIK, Semen Grigor'yevich. Primal
uchastiye KARASIK, V.M.; PISHCHENKO, I.A., kand. tekhn. nauk,
otv. red.; LABINOVA, N.M., red.; DAKHNO, Yu.B., tekhn. red.

[Operating conditions of large dredgers and pipelines] Rezhimy
raboty krupnykh zemlenosnykh snariadov i truboprovodov. Kiev,
Izd-vo AN USSR, 1962. 214 p. (MIRA 16:3)
(Hydraulic conveying) (Dredging machinery)

SILIN, M.O.; PISHCHENKO, I.A.

Device for measuring vertical pulsation speeds in pressure pipelines
during the movement of currents carrying suspended particles. Visti
Inst.hidrol. i hidr. AN URSR 21:88-93 '62. (MIRA 16:4)
(Pipe—Hydrodynamics) (Hydraulic conveying)

SILIN, M.O.; PISHCHENKO, I.A.

Device for measuring pressure fluctuations on the walls of a pipeline during the movement of a current carrying suspended particles. Visti
Inst.hidrol. i hidr. AN URSR 21:94-97 '62. (MIRA 16:4)
(Pipe—Hydrodynamics) (Hydraulic conveying)

SILIN, Nikolay Aleksandrovich; PISHCHENKO, Ivan Akimovich;
DIMINSKIY, Karol' Viktorovich; KONDakov, Vyacheslav
Nikolayevich; STOVBUH, Ivan Iosifovich; ROZOVSKIY,
Izrail' L'vovich, doktor tekhn. nauk, otv. red.;
MEL'NIK, T.S., red.; TURBANOVA, N.A., tekhn. red.

[Instruments for measuring parameters of hydraulic
conveying of solid materials] Pribory dlia izmereniia
parametrov gidrotransportirovaniia tverdykh materialov.
[By] N.A.Silin i dr. Kiev, Izd-vo AN USSR, 1963. 197 p.
(MIRA 17:3)

SILIN, N.A. [Silin, M.O.]

Determination of hydraulic resistances in pipelines and their relation to the velocity structure of suspension-carrying streams. Dop. AN URSR no.8:1032-1034 '64. (MIRA 17:8)

1. Institut gidrologii i gidrotekhniki AN UkrSSR. Predstavleno akademikom AN UkrSSR G.I. Sukhomelom [Sukhomel, H.I.]

SILIN, Nikolay Aleksandrovich; VINOGRADOV, Yuriy Konstantinovich;
KAFASIK, V.M., kand. tekhn. nauk, otv. red.; PILATOVA, T.A..
red.

[Hydraulic conveying of coal in pipes and methods of its
automation] Gidrotansport uglya po trubam i metody avto-
matizatsii. Kiev, Izd-vo KH VSES, 1984. 201.
(1984, 1984)

DIDKOVSKIY, M.E., kand. tekhn. nauk, otv. red.; DYATLOVITSKIY,
L.I., doktor tekhn. nauk, red.; ROZOVSKIY, I.L., doktor
tekhn. nauk, zam. otv. red.; NIKITIN, I.K., kand. tekhn.
nauk, red.; PYSHKIN, B.A., red.; SILIN, K.A., kand. tekhn.
nauk, red.; SUKHOMEL, G.I., akademik, red.; SHLEPANIK,
S.I., kand. tekhn. nauk, red.; GILELAKH, V.I., red.

[Hydraulic engineering and fluid mechanics] Gidrotekhnika
i gidromekhanika. Kiev, Naukova dumka, 1964. 217 p.
(MIRA 17:12)

1. Akademiya nauk UkrSR, Kiev. Instytut hidromekhaniky.
2. Chlen-korrespondent AN Ukr.SSR (for Pyshkin). 3. AN
Ukr.SSR (for Sukhomel).

BC

B-2-2

Preparation of p-nitrophenol by reduction of
p-nitrophenyl by iron shavings in presence of
caustic alkalis. R. T. Smith and E. A. Munson
(Analyst. Chem., 1963, 35, 881-881). 60-80%
yields of p-nitrophenol are obtained by reduction with
Fe in neutral eq. NaCl (p-nitrophenol) (2) 15 g. NaCl
34 g. per 100 g. of solution; 10% excess of Fe; 3 hr.
at 60-80°, with stirring (200 r.p.m.); the Na nitro-
phenoxide content of the (I) should be > 1%. Higher
yields are obtained by adding the Fe and the (I) in small
portions to the eq. NaCl.

R. T.

[illegible]

PROCESS AND PROPERTIES INDEX									
<p>ca</p> <p>3-Hydroxy-3-naphthoic acid. N. E. Silin and N. K. Moshchinskaya. Russ. 53,578, Aug. 31, 1960. The melt obtained by carbonation of β-naphthoxide is dissolved in a large amt. of H_2O, heated to boiling with steam, the pptd. resin filtered off, and β-naphthol and 3-hydroxy-3-naphthoic acid are recovered from the filtrate.</p>									
<p>ASB-514 METALLURGICAL LITERATURE CLASSIFICATION</p>									
<p>10000 10000 10000 10000 10000 10000 10000 10000 10000 10000</p>									

28

Nitrophenols. N. V. Shtil and (V. P. Shtil) *Soyuzdetkhim*
Russ. 30,673, March 31, 1960. Nitrophenols are
hydrolyzed with alkalis in the presence of weak oxidizers
such as O_3 or KNO_3 , to minimize the formation of resins
and to increase the yield.

10

1ST AND 2ND DEGREE		PROCESSES AND PROPERTIES INDEX		3RD AND 4TH DEGREE	
<p>10</p> <p>2 Naphthol. N. F. Niliu and N. K. Biagovschenskii. Rus. 56, 1946, Apr. 30, 1947. The naphthol melt is treated with acid sufficient for the neutralization of the free alkali and for the sepu. of about 8% of the 2-naphthol to obtain a solu. of naphtholate free of resinous admixts.</p>					
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>					
EDWIN STIVERS		EDWIN STIVERS		EDWIN STIVERS	
LONDON 1947		LONDON 1947		LONDON 1947	
LONDON 1947		LONDON 1947		LONDON 1947	

ca

Use of sodium *p*-nitrophenolate in analytical chemistry. N. P. Sulin and N. K. Moschinskaya. *Zhur. anal. khim.*, 2, 210-14 (1947).—The use of Na *p*-nitrophenolate dihydrate is explained (a) for standardizing acids, (b) as moisture indicator, (c) desiccant for some org. solvents and for filling desiccators, and (d) for det. HgO in some org. solvents in which the phenolate is insol. M. H.

7

A 10.114 METALLURGICAL LITERATURE CLASSIFICATION

Sim, L. F.

Chem. Sci

Thesis: "Investigation of the Process for Obtaining 1,3-Naphthalocarboxylic acid" 10/1/50

Moscow Order of Lenin Chemical-Technological Institute D. I. Mendeleev

SO Vechernyaya Moskva
Sum 71

MOSHCHINSKAYA, N. K.; SILIN, N. E.; DMITRENKO, Ye. Ye.; LIBERZON, V. A.;
LOKSHIN, G. B.; KORCHAGINA, A. M.; Primali uchastiye:
ZAL'TSMANOVICH, T. A.; MAMEDOV, A. A.; SAPSOVICH, L. V.;
SOKOLENKO, V., student; ZEMLYANSKAYA, L., studentka

Preparation of aromatic dicarboxylic acids and their chlorides.
Neftekhimiya 2 no.4:541-549 J1-Ag '62. (MIRA 15:10)

1. Dnepropetrovskiy khimiko-tehnologicheskii institut imeni
F. E. Dzerzhinskogo.

(Acids, Organic) (Chlorides)

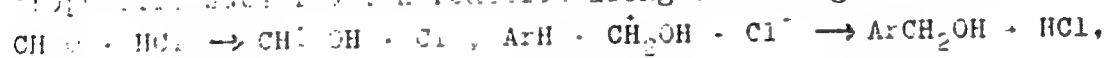
S/080/60/033/010/022/029
D216/D306

AUTHORS: Kretov, A.Ye., Silin, N.F., Korchagina, A.K.,
Lokshin, G.B., and Kitaina, S.N.

TITLE: The synthesis of terephthalic acid by chloromethylation of the products of aromatic hydrocarbons

PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 10, 1960,
2329 - 2335

TEXT: The authors studied the synthesis of terephthalic acid from toluene and its homologues by chloromethylation. This chloromethylation is widely used in organic synthesis, being a typical electrophilic substitution reaction along following scheme:



The authors, by increasing the temperature of the reaction by 20°C, (to 70-75°C) achieved the 10% in synthesis time to 12 hours while

Chem. 14

S. 080/60/033/010/022/029
D216/D306

The synthesis of ...

still retaining the yields of L. Nazarov and A. Semenovskiy (Ref. 11, DAN SSSR, 12, 1437, 1956). The increase in yield of isomeric xylochlorides was obtained by changing the proportions of toluene and formaldehyde. The optimum yield of 82.5 % was obtained with the formaldehyde content of 95 % of toluene giving a molar proportion of toluene and formaldehyde of 2:1 (formaldehyde was used in form of 40 % formalin). On the chloromethylation of ethyl benzene at 70-75°C for 25 hours a maximum yield of ethyl benzyl chloride of 90 % (on ethyl benzene used) was obtained with a proportion 1:1 of ethyl benzene-formaldehyde. The optimum yield of iso-propylbenzyl chloride was 80 % on the cumene used and with a proportion of cumene:formaldehyde of 3:1, temperature 70-75°C, time 25 hours. The authors studied the oxidation of isomeric xylochlorides with dilute (10 %) nitric acid with an optimum yield of toluic acids, of 89 % for periods of 17-18 hours. Later, in connection with the discovery of nitroproducts, the concentration of acid was cut down to 7-5 % and the time to 12-13 hours. The yield obtained was 85 %. On oxidation of iso-propyl benzyl chloride, besides iso-propyl benzoic acid, whose yield was up to 80 %, 20 % of a product was obtained which

Card 2/4

S/080/60/033/010/022/029
D216/D306

The synthesis of ...

were insoluble in a solid solution and which seemed to be a tertiary alcohol. The fraction of precipitation of toluic acids was also used as a means of separation. By removing HCl from the solutions of toluic acids, p-toluic acid was obtained with a yield of 42.3% and melting point of 178°C, o-toluic acid with a yield of 4.1% and a melting point of 99°C. Dicarboxylic acids were also obtained with high melting points and a yield of 1.10%. Technical literature gives various methods of esterification of terephthalic acid but the author has obtained dimethyl terephthalate by esterification of the acid with a large excess of methanol (48 ml. to 1 g. of acid) and in the presence of concentrated sulphuric acid. This product proved unsuitable for transesterification. Esterification of isophthalic acid in the presence of hydrogen chloride yielded 90% of isophthalate which did not darken on heating to 250°C. Further purification was achieved by double distillation under Cl_2 . The product obtained gave a melting point of 141°C, which agrees with the required standard. There are 4 tables, 1 figure and 30 references: 6 Soviet-bloc and 26 non-Soviet-bloc.

Card 4.

The synthesis of ...

S/080/00/033/010/022/029
D216/D396

The 4 most recent references to the English-language publications read as follows: Chem. Trade J., 143, 3717, 504, 1958; J. Bengstrom. J. Org. Chem., 23, 242, 1958; Khasim et. Ono Kagakihama, Annesi. J. Chem. Soc. Japan (Ind.) 59, 1196, 1956; Am. pat 2766280 1956.

SUBMITTED: March 16, 1961

Card 4.4

KRETOV, A.Ye.; SILIN, N.F.; BARANOVA, Ye.I.; LOKSHIN, G.B.

Production of terephthalic acid from commercial diethylbenzene.
Zhur.prikl.khim. 35 no.4:863-866 Ap '62. (MIRA 15:4)
(Terephthalic acid) (Benzene)

SILIN, N.M.

Using the EPP-9 potentiometer in complement with the ER-3 regulator.
Priboroostroenie no.4:23 Ap '62. (MIRA 15:4)
(Potentiometer)

SOV/32-25-3-53/62

8(2)

AUTHORS:

Mayranovskiy, S. G., Silin, N. N.

TITLE:

The Use of a Potentiometer for Polarographic Investigations
(Primeneniye potentsiometra dlya polyarograficheskikh iss-
ledovaniy)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 3, pp 376-377 (USSR)

ABSTRACT:

On numerous occasions it is necessary to determine the exact relationship between current intensity and the electrode potential in the case of multi-stage polarograms. The potential of the dropping electrode is measured by means of potentiometers with reference to a testing electrode. A simple method is described by means of which it is rendered possible to increase the measuring range of the most often used potentiometers of the P-4 type. With the help of the new wiring pattern (Fig 1) the measuring range of the potentiometer is trebled so that it becomes also necessary to equip the rheochord as well as the commutator with a new scale. It was observed that in polarizing the dropping electrode it is more advantageous to use a polarograph with a voltage divider rather than a polarograph alone. An apparatus combining both

Card 1/2

SOV/32-25-3-53/62
• The Use of a Potentiometer for Polarographic Investigations

features, i.e. voltage divider combined with a potentiometer is in the present case called a "polaropotentiometer". Apparatus of this kind were built by Ye. M. Vasin and Yu. F. Til'. The sketch of a voltage divider (Fig 2) with a description is given, and a few design instructions for such an apparatus are added. There are 2 figures.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR
(Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

Card 2/2

RUSAKOVSKIY, M. [Rusakova'kyi, M.], arkhitektor, SILIN, O. [Sylin, O.] inzh.

Rowhouses for southern regions of the Ukraine. Prosk. i bud. 1
no.1:40-44 0 '59. (MIRA 13:12)
(Ukraine—Apartment houses)

11A SILIN O.P.

11A

Globular and micellar structure of proteins. I. N. Bulankin and O. P. Silin. *Biochimiya* 6, No. 4/5, 487-90 (1941) (English summary). -- Enzymic disaggregation, anisotropy of flow and polarimetric behavior were studied on gelatin, egg albumin, blood albumin and globulin. It is concluded that there are two types of protein: globular and micellar. Globular proteins upon acidification or alkalinization transform irreversibly into the micellar type. This transformation is of profound biol. significance for it explains a series of structural and phys. protoplasmic formations.

Zoo-Biological INST., Khar'kov State Univ. im
A. M. GOR'KIY
Chair Biochem
Sector Gen Physiology

ASA-5LA METALLURGICAL LITERATURE CLASSIFICATION

SILIN, O.P.

Age characteristics of fasting metabolism. Uch.zap. KHGU
53:215-229 '54. (MIRA 11:11)

1. Otdel obshchey fiziologii nauchno-issledovatel'skogo instituta
biologii i kafedra biokhimii Khar'kovskogo gosudarstvennogo univer-
siteta imeni A.M. Gor'kogo.
(AGE) (STARVATION)

SILIN, O.P.

Age-induced disorders in oxidative phosphorylation. Uch.zap.KHGU
68 :51-57 '56 (MIRA 11:11)

1.Nauchno-issledovatel'skiy institut biologii Khar'kovskogo ordena
trudovogo krasnogo znami gosudarstvennogo universiteta imeni A.M.
Gor'kogo.

(AGE) (PHOSPHORYLATION)

USSR/Human and Animal Physiology. Neuromuscular Physiology.

T

Abs Jour: Ref Zhur-Biol., No 8, 1958, 36814.

Author : Nikitin, V.N., Golubitskaya, R.I., Silin, O.F.
Likhushina, L.G., Blok, L.N.

Inst : Kharkov University.

Title : Changes in Biochemistry of Denervated Organs Occuring
During Growth Periods. I. Changes of Some Biochemical
Indices of Striated Muscles Following Denervation and
Tenotomy During Growth.

Orig Pub: Uch. Zap. Kharkovsk un-t. 1956, 68, 79-99.

Abstract: Experiments were carried out on rats aged 1.4 months
to 1.4 years. On the 21st day following removal of
the Achilles tendon a decrease was noted in the
muscles of the foot of the ATP, creatinephosphate,
glycogen, acid soluble P, Lipoid P.P. PNC and DNC

Card : 1/2

SILIN, ~~of~~

U.S.S.R. / Human and Animal Physiology. Liver.

T

Abs Jour: Ref Zhur-Biol., No 5, 1958, 22290.

Author : Nikitin, V. N., Golubitskaya, R. I., Silin^{o.p},
Stovitskaya, L. P.

Inst : Univ. of Kharkov.

Title : Quantitative Biochemical Changes in Denervated
Organs. (II). Quantitative Changes of Some
Biochemical Liver Factors Following Denervation.

Orig Pub: Uch. zap. Kharkovska. Un-t, 1956, 68, 101-116.

Abstract: The liver of rats 1-3 months and 1-2 yrs. old
was denervated by section of both vagus nerves
and excision of the solar plexus. Animals,
which only underwent laparatomy, served as con-
trols. Twenty days post-operatively, it was
noted that the weight of all the rats decreased
more markedly in the animals one month, one and

Card 1/2

SILIN. O P

4-9-8/25

AUTHOR: Popovski, Mark
 TITLE: Secrets of Youth and Aging (Tayny molodosti i stareniya)
 PERIODICAL: Znaniye - Sila, 1957, # 9, pp 18-19 (USSR)

ABSTRACT:

The article deals with the work performed by the Khar'kov Institute of Biology. The present Director Vladimir Nikolayevich Nikitin associate member of the USSR Academy of Sciences, successor to Professor A. Nagornyy, associate member of the USSR Academy of Sciences, pointed out that the Khar'kov Institute is developing a method of scientific cooperation between physiology and biochemistry. The laboratories contain as well physiological as biochemical apparatus. The pupils of A. Nagornyy are studying the organism in general and metabolism in particular.

For research work the Institute keeps 2,000 rats of different age. The Soviet scientists are using a method, discovered by the American scientist Mac Kay (Mak-Key), who found that if rats are getting less food, this retards their growth radically, but doubles the duration of their lives. The Institute scientists did not only repeat these experiments, but improved the method considerably. Supervised by Professor Nikitin, the scientists study the tissues and cells of underfed animals and the inner biochemical changes evoked by hunger.

Card 1/2

Secrets of Youth and Aging

4-9-8/25

The biochemical research is directed by the full member of the Unkrainian Academy of Sciences Professor Bulankin. The biochemical studies try to determine the synthesis of albumen in different ages. Another task is to find out the rate of albumen formation of young and old animals.

The senior scientist of the Institute, Oleg Petrovich Silin, carries out tests with radioactive materials (sulfur isotopes) to determine the different albumen synthesis of young and old animals.

But the task of the biochemists is not limited with the description of albumen changes by ages, it is more important to ascertain the source of these changes.

AVAILABLE: Library of Congress

Card 2/2

MAKHIN'KO, Vladimir Ivanovich.; SILIN, O.P., dots., otv. red.; PROKOPENKO,
M.I., red.; CHERNYSHENKO, Ya.T., tekhn. red.

[Subject and problems of the physiology of higher nervous
activity; an introduction to a course in the physiology of higher
nervous activity] Predmet i zadachi fiziologii vysshei nervnoi
deiatel'nosti; vvedenie k kursu fiziologii vysshei nervnoi
deiatel'nosti. Khar'kov, Izd-vo Khar'kovskogo gos. univ. im.
A.M. Gor'kogo, 1958. 91 p. (MIRA 11:12)
(NERVOUS SYSTEM)

NIKITIN, V.N.; SILIN, O.P.; MOROZ, Yu.A.

Sulfur-containing amino acids in liver and muscle proteins of
white rats of various age. Uzh. zap KHGU 108:49-51 '60.

(MIRA 14:3)

(AMINO ACID METABOLISM)

(AGE)

(SULFUR IN THE BODY)

SILIN, O.P.

The renewal rate of muscle and liver proteins in ontogenesis.
Uch. zap KHGU 108:53-60 '60. (MIRA 14:3)

1. Otdel fiziologii cheloveka Khar'kovskogo gosudarstvennogo universiteta.
(PROTEIN METABOLISM) (AGE)

SECRET
(TOP SECRET 1005)

• 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100 2101 2102 2103 2104 2105 2106 2107 2108 2109 2110 2111 2112 2113 2114 2115 2116 2117 2118 2119 2120 2121 2122 2123 2124 2125 2126 2127 2128 2129 2130 2131 2132 2133 2134 2135 2136 2137 2138 2139 2140 2141 2142 2143 2144 2145 2146 2147 2148 2149 2150 2151 2152 2153 2154 2155 2156 2157 2158 2159 2160 2161 2162 2163 2164 2165 2166 2167 2168 2169 2170 2171 2172 2173 2174 2175 2176 2177 2178 2179 2180 2181 2182 2183 2184 2185 2186 2187 2188 2189 2190 2191 2192 2193 2194 2195 2196 2197 2198 2199 2200 2201 2202 2203 2204 2205 2206 2207 2208 2209 2210 2211 2212 2213 2214 2215 2216 2217 2218 2219 2220 2221 2222 2223 2224 2225 2226 2227 2228 2229 2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254 2255 2256 2257 2258 2259 2260 2261 2262 2263 2264 2265 2266 2267 2268 2269 2270 2271 2272 2273 2274 2275 2276 2277 2278 2279 2280 2281 2282 2283 2284 2285 2286 2287 2288 2289 2290 2291 2292 2293 2294 2295 2296 2297 2298 2299 2300 2301 2302 2303 2304 2305 2306 2307 2308 2309 2310 2311 2312 2313 2314 2315 2316 2317 2318 2319 2320 2321 2322 2323 2324 2325 2326 2327 2328 2329 2330 2331 2332 2333 2334 2335 2336 2337 2338 2339 2340 2341 2342 2343 2344 2345 2346 2347 2348 2349 2350 2351 2352 2353 2354 2355 2356 2357 2358 2359 2360 2361 2362 2363 2364 2365 2366 2367 2368 2369 2370 2371 2372 2373 2374 2375 2376 2377 2378 2379 2380 2381 2382 2383 2384 2385 2386 2387 2388 2389 2390 2391 2392 2393 2394 2395 2396 2397 2398 2399

SILIN, P.I.

Sewage Irrigation

Irrigating collective farm fields with waste water from sugar factories.
Sakh. prom., 26, No. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1952 ~~1977~~, Uncl.

~~by~~ pipes for a to for pipelines of sugar factories, Sukh.

no. 2001-11-11-11.

(11-11-11)

anaxhar.

(11-11-11)

SILIN, P.I.

Lower the consumption of fresh water and decrease the amount of
waste water (from "Zeitschrift für die Zuckerindustrie," no. 8.
1956). Sakh. orom. 32 no. 6:74 Je '58. (MIRA 11:7)
(Sugar industry)

SILIN, P.I.

Processing waste water in beet sugar plants in Great Britain
(from "Chemistry and Industry," Oct.1955). Sakh.prom. 32
no.10:72-76 O '58. (MIRA 11:11)
(Great Brit_nin--Sewage--Purification)

SILIN, P.I.

Use of expansion joints on outside steel piping at sugar factories. Sakh.prom. 33 no.3:25-26 Mr '59. (MIRA 12:4)

1. Giprosakhar.
(Pipe joints)

SILIN, P.I.

Utilization of filter press waste. Sakh. prom. 33 no.4:70-71
Ap '59. (MIRA 12:6)
(Sugar industry--By-products)

SILIN, P.I.

Planning practice and standards for planning sewage systems
of Standards and Technical Requirements 141-56. Sakh.prom.
33 no.7:56 J1 '59. (MIRA 12:11)

1. Giprosakhar.
(Sewage--Purification)

SILIN, P.I.

Processing waste water from sugar factories by way of soil (from
"Zucker," nos. 2-3, 1961). Sakh. prom. 35 no.11:75 II '61.
(MIRA 15:1)

(Sewage--Irrigation)

SILIN, P.I.

Pneumatic conveying of filter-press mud (from "Gazeta Cukrownicza,"
no.5, 1961). Sakh.prom. 36 no.5:74 My '62. (MIRA 15:5)
(Poland---Sugar industry---Equipment and supplies)
(Pneumatic-tube transportation)

SILIN, P.I.

Use of hydrocyclones for the clarification of flume waters.
Sakh.prom. 36 no.9:33-35 S '62. (MIRA 16:11)

1. Gosudarstvennyy proyektnyy institut sakharnoy promyshlennosti.

SILIN, P.I.

~~Lining~~ of flume water. Sakh. prom. 37 no.8:69 Ag '63.
(MIRA 16:8)

(Industrial wastes--Purification)
(Sugar beets--Transportation)

SILIN, P.I.

Purification of the waste waters from sugar factories. S kh.prom.
37 no.9:74-75 S '63. (MIRA 16:9)
(Czechoslovakia--Industrial wastes--Purification)

BORKOVSKIY, I.A.; VOSTOKOV, A.I.; ZHIVIRKO, I.S.; LEDESHKIN, I.P.;
MEL'NIK, M.K.; MITROFANOV, V.P.; RODKEVICH, A.V.; SILIN,
I.I. [deceased]; YAKUBOVSKIY, V.V.; YEREMENKO, B.A.,
retsenzent; MAR'YANCHIK, V.L., retsenzent; MAKSIMOV, A.I.,
retsenzent; PRITYKINA, L.A., red.

[Handbook for the sugar manufacturer] Spravochnik sakhar-
nika. Moskva, Pishchevaia promyshlennost'. Pt.2. 1965.
778 p. (MIRA 18:9)

26

Role of pectinous substances in sugar manufacture P. M. Solon and Z. A. Solina
J. Sugar Ind. (U. S. S. R.) 5, 600-11 (1931); *Sugar Abstracts* (in *Engr. Food Sugar*)
 27, 440. - The soly. of the pectinous substances of the sugar beet was studied by treating
 dried beet pulp with distil. H₂O for various lengths of time at different temps. The
 increase in soly. is very small and gradual, and is little affected by temp. differences up
 to about 80°, but at this temp. the amt. of pectinous substances passing into soln.
 increases very rapidly; the amt. dissolved in 2 hrs. at 90° may be more than 30 times
 as much as at 80° for the same length of time. The effect of H-ion concn. on soly. of
 pectins was studied, dried beet pulp being used. The *pH* of the soln. was adjusted by
 buffer solns. of NaH₂PO₄ for the acid side and NaOH for the alk. side. Soly. of pectin
 is min. at *pH* 5.2, where the amt. of sol. pectin is 0.044%. On the acid side this in-
 creases to 0.118% at *pH* 2.5 and on the alk. side to 0.644% at *pH* 12.1. With technolo-
 gists at the Ramon factory, the authors studied the movement of pectins in a 12-cell
 diffusion battery. The pectin content of the diffuser water (1st cell) was 0.0015%
 on juice, this gradually rose to 0.007% in the juice from the 3rd cell and then jumped to
 0.115% in the 2nd cell. The final concn. was 0.13%. A factory scale expt. was made
 to det. the effect of temp. during the diffusion process. In one series the diffuser
 temps. were maintained between 52.8° and 75.0° (av. 64°) and in another series
 between 52.8° and 83.1° (av. 70.5°). Under these conditions the diffusion juices con-
 tained, resp., 0.11% and 0.23% of sol. pectinous substances; i. e., with an av. difference
 of 0.1° in diffusion temp., the amt. of pectinous substance was a trifle more than doubled.
 This difference in pectin content amounts to about 0.14% on beets, and it is assumed
 that if left in the juice the increase in the molasses would be increased by 0.15% on
 beets. The effect of defeco-carbonation on the pectinous substances was studied,
 a soln. of pectins obtained by digesting dry beet pulp being used. After defeco-car-
 bonation the soln. still contained 70.1% of the original pectins; so the purifying effect
 of the process as regards these substances is only about 24% (G. G.)

16

Characteristic effects of defecation and first carbonation. P. M. Salin and Z. A. Salina. *Trans. Central. Soc. Research Ind. Sugar Ind.* (U. S. S. R.) No. 13, 38-50 (1953); *Sugar Abstracts* (in *Facts About Sugar*) 29, 165. The results of a shortened time of defecation at 85-90° and of a longer time at a lower temp. are equivalent, but when the time allowed for defecation is shortened, it is necessary to watch closely the drop in alk. during the evapn. and sugar boiling. If this drop is abnormally great, or if foaming occurs, either the time of defecation should be lengthened or the temp. of defecation raised. Addn. of lime "in the cold" results in restraining the increase of color during defecation and tends to raise the purity. The lower limit of alk. in the first carbonation is 0.00% CaO. Control of juice purification "according to purity coeff." is insufficient, because the range of error in purity detns. is rather wide; for this control it is necessary also to det. color and content of lime salts. G. G.

27

ca

28

Purification of the sirup in the manufacture of sugar by means of flotation. A. V. Dumanskii, P. M. Solin and S. K. Kharin. *Bull. inst. kollekt. Leningrad* 1934, No. 1, 44-61; *Chem. Zentr.* 1936, II, 2245. It is possible to remove part of the surface-active nonsugar constituents by "microflotation" with the froth. Better results are obtained at 45-50° than at 80°. This effect is due for the most part not to the flotation, but to better adsorption by the dispersed CaCO_3 ppt. which forms in the cold. The process removes to the greatest degree those substances which have most surface activity. Purification of sirup, juices and molasses by the flotation method gave only inconsequential results. W. A. Moore

ASD SLA METALLURGICAL LITERATURE CLASSIFICATION

Crystallization and molasses formation P. M. Salina and P. A. Salina *Indust. Engng. Chem. Anal. Ed.* 1952, 24, 1, 124-126, 127, 128. A brief review of crystal theories and data obtained in crystal of supersaturated solutions of molasses from six different plants at const. temp. (40°) indicates that crystal comprises two steps: diffusion of sugar to the surface of the crystal through a stationary layer of the mother liquor adhering to it and its conversion into crystals. The velocity of the first step is proportional to the difference of concns. in the surrounding soln. and at the surface of the crystal, that of the second to the square of excess concn. (supersatn.) at the crystal face. The velocity of crystal is given by the formula $k = (82.3 \times 10^{-5} \times T^{-0.79}) (\Delta c + 0.0015 \Delta c^2 + 0.0025 \Delta c^3) \eta^{-0.5}$ m./min., in which η is the viscosity of the salt-sugar soln. at abso. temp. in centipoises and Δc is excess supersatn. which is approx. proportional to concn. in % w/w of that at satn. For low-quality molasses k is proportional to excess supersatn. resulting from dissolving addnl. sugar at elevated temp., but not by concn. the molasses. It is independent of the crystal size except where the crystals are very small, and the rate of stirring within 1 r. p. m. per 1.5-4.0 min. The standard concn. of dry matter corresponding to 400 centipoises, permitting centrifuging of molasses, corresponds to 82.0° Brix at 40°, 79.6° at 30° and 84.4° at 50°. The quality of tech. molasses can be fixed, on the basis of this concn. by exp. crystal, which is diagrammatically illustrated. J. G. Tolpin

Performance of a diffusion battery. P. M. Salun and Z. A. Ahsan. *Trudy Vsesoyuz. Khim.-Tekhn. Inst.* 2, 3 (1938).—An equation is derived for the amt. of sugar extd., depending upon the av. temp., diffusion period, pumping and length of the beet shavings. This equation was verified in expts. with 5 or 7 sugar batteries at 70° with shavings from 11.1 to 21 m. long, and the tabulated results show that regardless of the no. of diffusers, the losses continuously decrease, approaching 0 with increase of the no. of cycles of the battery. Plant-scale expts. are reported showing general agreement with the lab. data. While the performance of an ordinary diffusion battery is close to that of a continuous counter-current diffusion app., the characteristics of the tail part of the battery greatly affect the sugar loss. Diagrams were constructed permitting rapid detn. of the loss of sugar and some factors evaluated affecting the loss under plant conditions. J. G. Tolpin

4.1.1.4 METALLURGICAL LITERATURE CLASSIFICATION

PROCESSING AND PREPARATION NOTES

Optimal pH for preliminary clarification and saturation
P. M. Slin, Z. A. Silina and E. P. Strukova. *Trudy
Vsesoyuzn. Khim.-Tekhnol. Inst.* 3:4, 19 (31;1969). An
exptl. study was carried out showing that different col-
loidal and cryst. mod. Ca compds. present in the soln.
handled in the sugar industry possess close optimal co-
agulation points at the following pH: CaCO_3 , 11.10;
 $\text{Ca}(\text{COO})_2$, 11.33; Ca tartrate, 11.62; Ca citrate, 11.50;
 CaSO_4 , 11.30; proteins combined with CaO , 10.49;
Ca galacturonate, 11.11; Ca salts of products of alk.
decompn. of invert sugar, 10.90. The pptn. is hampered
because at pH less than 11, insufficient CaO is present and
hydrolysis of Ca salts of weak acids occurs. Above pH
11, the Ca salts are peptized by alkali and sucrose-forming
gels difficult of filtration and soln. increasing the color
and raising the content of Ca salts in soln. The work is
being continued. J. G. Tolpin

28

ADDITIONAL NOTES

ADDITIONAL LITERATURE CLASSIFICATION

ADDITIONAL NOTES

Reversion of glucose. P. M. Silin and H. A. Suprunova.
Fizy. Khim. i Tekhn. Ind. 3, 4, 79-87 (1930).
In order to verify the assumed bimol. character of the
reversion of glucose in methacarbonation of starch in the
presence of acids, expts. were carried out in which glucose
was treated with 0.5 N HCl and the amt. of glucose re-
maining after the expt. detd. iodometrically. Tabulated
data confirm that the above reaction is bimol. and reversi-
ble. Its av. $K' = \Delta n^2 / [100(100 - n)] = 250$, in which
.1 is % glucose in H₂O before the reversion and n is %
glucose in the dry substance at equil. after reversion.
Contrary to literature data, the products of reversion are
not oxidized by I or Fehling soln. I. G. Tolnin

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001550610008-5"

<p>1ST AND 2ND COPIES</p> <p>PROPERTIES AND PROPERTIES INDEX</p> <p>27</p> <p>Biochemical index characters of the sugar beet. P. M. Soling. Bull. Acad. Sci. USSR, Ser. Biol. 1960, 924-35; cf. C. A. 29, 3800f, 0780f. "Normal molasses" (I) is a soln. of sugar and nonsugars, contg. 82% dry substance, and satd. at 40°. The "normal quality" (II) of molasses varies with the quality of the beet and depends on the capacity of the nonsugar portion to lower or increase the sol. of sugar. There is 18% water in I, in which at 40° 18 × 2.38% of sucrose would be sol. in the absence of nonsugars. Since the latter increase this sol. (satur. coeff.), the soln. will contain 18 × 2.38 × 0.6% sugar. Thus II equals (18 × 2.38 × 0.6 × 100)/82. K salts increase, and Na and Ca salts decrease II. The OH ion forms a high amt. of saccharates and is followed in this capacity by K and Na carbonates. Anions of org. acids are weak. For evaluation of beets on the basis of sugar yield and its transition into molasses, a sample of beet shavings is put through a battery of 10 diffusion cylinders standing in a water bath at 95° (app. as described in detail). The gravity tank is placed about 1 m. above the cylinders and its water temp. maintained at 60-70°. When 3-4 l. of diffusion juice is obtained, the pH is brought to 11 with milk of lime (preliminary defecation). Then 800-1000 cc. of the juice is rapidly heated to 90° and the main defecation completed with 1% milk of lime. For the first satn. CO₂ is generated from NaHCO₃ and HCl in a specially built saturator and the pH adjusted to 11. The satd. juice is filtered and the filtrate again satd. with CO₂, boiled for 10 min. and filtered. In the filtrate the dry matter is detd. refractometrically. The percentage sugar, coloring, Ca salts and alkali are also detd. On evapn. and crystn. of the satd. sap, and centrifuging, the quality of the sirup and the molasses is detd. at 40°. The ash and CaO content ("molasses forming ash coeff.") are also detd. The method provides a means of predicting the quality and output from a given batch of beets and could be applied to the study of the keeping qualities of fresh as well as frozen beets. T. Jaanes</p>	
<p>ASH 51A METALLURGICAL LITERATURE CLASSIFICATION</p>	<p>22-7-25-12</p>

~~Силин, П. М. Химический контроль свеклосахарного производства.~~

(Control and accounting in the sugar refining industry) Moskva,
Pishchepromizdat, 1944. 78 p. (49-42737)

TP33C.I2

1. Sugar - Manufacture and refining. 2. Beets and beet sugar. I. Smirnov, V. A.,
jt. au. II. Silin, P. M. Khimicheskii kontrol'sveklosakharnogo proizvodstva.

137 AND 138 CODES

PROCESSES AND PROPERTIES INDEX

140 AND 4TH CODES

28

Purification of (beet) juice by ion exchange. J. M. Selim, *Sakharaya Prom.* 10, No. 3, 19-20(1966). The use of cation and anion exchangers for the purification of beet-sugar juice as practiced at the Mount Pleasant, Mich., refinery is described. M. Hovch

139 AND 140 CODES

141 AND 142 CODES

143 AND 144 CODES

145 AND 146 CODES

147 AND 148 CODES

149 AND 150 CODES

151 AND 152 CODES

153 AND 154 CODES

155 AND 156 CODES

157 AND 158 CODES

159 AND 160 CODES

161 AND 162 CODES

163 AND 164 CODES

165 AND 166 CODES

167 AND 168 CODES

169 AND 170 CODES

171 AND 172 CODES

173 AND 174 CODES

175 AND 176 CODES

177 AND 178 CODES

179 AND 180 CODES

181 AND 182 CODES

183 AND 184 CODES

185 AND 186 CODES

187 AND 188 CODES

189 AND 190 CODES

191 AND 192 CODES

193 AND 194 CODES

195 AND 196 CODES

197 AND 198 CODES

199 AND 200 CODES

201 AND 202 CODES

203 AND 204 CODES

205 AND 206 CODES

207 AND 208 CODES

209 AND 210 CODES

211 AND 212 CODES

213 AND 214 CODES

215 AND 216 CODES

217 AND 218 CODES

219 AND 220 CODES

221 AND 222 CODES

223 AND 224 CODES

225 AND 226 CODES

227 AND 228 CODES

229 AND 230 CODES

231 AND 232 CODES

233 AND 234 CODES

235 AND 236 CODES

237 AND 238 CODES

239 AND 240 CODES

241 AND 242 CODES

243 AND 244 CODES

245 AND 246 CODES

247 AND 248 CODES

249 AND 250 CODES

251 AND 252 CODES

253 AND 254 CODES

255 AND 256 CODES

257 AND 258 CODES

259 AND 260 CODES

261 AND 262 CODES

263 AND 264 CODES

265 AND 266 CODES

267 AND 268 CODES

269 AND 270 CODES

271 AND 272 CODES

273 AND 274 CODES

275 AND 276 CODES

277 AND 278 CODES

279 AND 280 CODES

281 AND 282 CODES

283 AND 284 CODES

285 AND 286 CODES

287 AND 288 CODES

289 AND 290 CODES

291 AND 292 CODES

293 AND 294 CODES

295 AND 296 CODES

297 AND 298 CODES

299 AND 300 CODES

301 AND 302 CODES

303 AND 304 CODES

305 AND 306 CODES

307 AND 308 CODES

309 AND 310 CODES

311 AND 312 CODES

313 AND 314 CODES

315 AND 316 CODES

317 AND 318 CODES

319 AND 320 CODES

321 AND 322 CODES

323 AND 324 CODES

325 AND 326 CODES

327 AND 328 CODES

329 AND 330 CODES

331 AND 332 CODES

333 AND 334 CODES

335 AND 336 CODES

337 AND 338 CODES

339 AND 340 CODES

341 AND 342 CODES

343 AND 344 CODES

345 AND 346 CODES

347 AND 348 CODES

349 AND 350 CODES

351 AND 352 CODES

353 AND 354 CODES

355 AND 356 CODES

357 AND 358 CODES

359 AND 360 CODES

361 AND 362 CODES

363 AND 364 CODES

365 AND 366 CODES

367 AND 368 CODES

369 AND 370 CODES

371 AND 372 CODES

373 AND 374 CODES

375 AND 376 CODES

377 AND 378 CODES

379 AND 380 CODES

381 AND 382 CODES

383 AND 384 CODES

385 AND 386 CODES

387 AND 388 CODES

389 AND 390 CODES

391 AND 392 CODES

393 AND 394 CODES

395 AND 396 CODES

397 AND 398 CODES

399 AND 400 CODES

401 AND 402 CODES

403 AND 404 CODES

405 AND 406 CODES

407 AND 408 CODES

409 AND 410 CODES

411 AND 412 CODES

413 AND 414 CODES

415 AND 416 CODES

417 AND 418 CODES

419 AND 420 CODES

421 AND 422 CODES

423 AND 424 CODES

425 AND 426 CODES

427 AND 428 CODES

429 AND 430 CODES

431 AND 432 CODES

433 AND 434 CODES

435 AND 436 CODES

437 AND 438 CODES

439 AND 440 CODES

441 AND 442 CODES

443 AND 444 CODES

445 AND 446 CODES

447 AND 448 CODES

449 AND 450 CODES

451 AND 452 CODES

453 AND 454 CODES

455 AND 456 CODES

457 AND 458 CODES

459 AND 460 CODES

461 AND 462 CODES

463 AND 464 CODES

465 AND 466 CODES

467 AND 468 CODES

469 AND 470 CODES

471 AND 472 CODES

473 AND 474 CODES

475 AND 476 CODES

477 AND 478 CODES

479 AND 480 CODES

481 AND 482 CODES

483 AND 484 CODES

485 AND 486 CODES

487 AND 488 CODES

489 AND 490 CODES

491 AND 492 CODES

493 AND 494 CODES

495 AND 496 CODES

497 AND 498 CODES

499 AND 500 CODES

501 AND 502 CODES

503 AND 504 CODES

505 AND 506 CODES

507 AND 508 CODES

509 AND 510 CODES

511 AND 512 CODES

513 AND 514 CODES

515 AND 516 CODES

517 AND 518 CODES

519 AND 520 CODES

521 AND 522 CODES

523 AND 524 CODES

525 AND 526 CODES

527 AND 528 CODES

529 AND 530 CODES

531 AND 532 CODES

533 AND 534 CODES

535 AND 536 CODES

537 AND 538 CODES

539 AND 540 CODES

541 AND 542 CODES

543 AND 544 CODES

545 AND 546 CODES

547 AND 548 CODES

549 AND 550 CODES

551 AND 552 CODES

553 AND 554 CODES

555 AND 556 CODES

557 AND 558 CODES

559 AND 560 CODES

561 AND 562 CODES

563 AND 564 CODES

565 AND 566 CODES

567 AND 568 CODES

569 AND 570 CODES

571 AND 572 CODES

573 AND 574 CODES

575 AND 576 CODES

577 AND 578 CODES

579 AND 580 CODES

581 AND 582 CODES

583 AND 584 CODES

585 AND 586 CODES

587 AND 588 CODES

589 AND 590 CODES

591 AND 592 CODES

593 AND 594 CODES

595 AND 596 CODES

597 AND 598 CODES

599 AND 600 CODES

601 AND 602 CODES

603 AND 604 CODES

605 AND 606 CODES

607 AND 608 CODES

609 AND 610 CODES

611 AND 612 CODES

613 AND 614 CODES

615 AND 616 CODES

617 AND 618 CODES

619 AND 620 CODES

621 AND 622 CODES

623 AND 624 CODES

625 AND 626 CODES

627 AND 628 CODES

629 AND 630 CODES

631 AND 632 CODES

633 AND 634 CODES

635 AND 636 CODES

637 AND 638 CODES

639 AND 640 CODES

641 AND 642 CODES

643 AND 644 CODES

645 AND 646 CODES

647 AND 648 CODES

649 AND 650 CODES

651 AND 652 CODES

653 AND 654 CODES

655 AND 656 CODES

657 AND 658 CODES

659 AND 660 CODES

661 AND 662 CODES

663 AND 664 CODES

665 AND 666 CODES

667 AND 668 CODES

669 AND 670 CODES

671 AND 672 CODES

673 AND 674 CODES

675 AND 676 CODES

677 AND 678 CODES

679 AND 680 CODES

681 AND 682 CODES

683 AND 684 CODES

685 AND 686 CODES

687 AND 688 CODES

689 AND 690 CODES

691 AND 692 CODES

693 AND 694 CODES

695 AND 696 CODES

697 AND 698 CODES

699 AND 700 CODES

701 AND 702 CODES

703 AND 704 CODES

705 AND 706 CODES

707 AND 708 CODES

709 AND 710 CODES

711 AND 712 CODES

713 AND 714 CODES

715 AND 716 CODES

717 AND 718 CODES

719 AND 720 CODES

721 AND 722 CODES

723 AND 724 CODES

725 AND 726 CODES

727 AND 728 CODES

729 AND 730 CODES

731 AND 732 CODES

733 AND 734 CODES

735 AND 736 CODES

737 AND 738 CODES

739 AND 740 CODES

741 AND 742 CODES

743 AND 744 CODES

745 AND 746 CODES

747 AND 748 CODES

749 AND 750 CODES

751 AND 752 CODES

753 AND 754 CODES

755 AND 756 CODES

757 AND 758 CODES

759 AND 760 CODES

761 AND 762 CODES

763 AND 764 CODES

765 AND 766 CODES

767 AND 768 CODES

769 AND 770 CODES

771 AND 772 CODES

773 AND 774 CODES

775 AND 776 CODES

777 AND 778 CODES

779 AND 780 CODES

781 AND 782 CODES

783 AND 784 CODES

785 AND 786 CODES

787 AND 788 CODES

789 AND 790 CODES

791 AND 792 CODES

793 AND 794 CODES

795 AND 796 CODES

797 AND 798 CODES

799 AND 800 CODES

801 AND 802 CODES

803 AND 804 CODES

805 AND 806 CODES

807 AND 808 CODES

809 AND 810 CODES

811 AND 812 CODES

813 AND 814 CODES

815 AND 816 CODES

817 AND 818 CODES

819 AND 820 CODES

821 AND 822 CODES

823 AND 824 CODES

825 AND 826 CODES

827 AND 828 CODES

829 AND 830 CODES

831 AND 832 CODES

833 AND 834 CODES

835 AND 836 CODES

837 AND 838 CODES

839 AND 840 CODES

841 AND 842 CODES

843 AND 844 CODES

845 AND 846 CODES

847 AND 848 CODES

849 AND 850 CODES

851 AND 852 CODES

853 AND 854 CODES

855 AND 856 CODES

857 AND 858 CODES

859 AND 860 CODES

861 AND 862 CODES

863 AND 864 CODES

865 AND 866 CODES

867 AND 868 CODES

869 AND 870 CODES

871 AND 872 CODES

873 AND 874 CODES

875 AND 876 CODES

877 AND 878 CODES

879 AND 880 CODES

881 AND 882 CODES

883 AND 884 CODES

885 AND 886 CODES

887 AND 888 CODES

889 AND 890 CODES

891 AND 892 CODES

893 AND 894 CODES

895 AND 896 CODES

897 AND 898 CODES

899 AND 900 CODES

901 AND 902 CODES

903 AND 904 CODES

905 AND 906 CODES

907 AND 908 CODES

909 AND 910 CODES

911 AND 912 CODES

913 AND 914 CODES

915 AND 916 CODES

917 AND 918 CODES

919 AND 920 CODES

921 AND 922 CODES

923 AND 924 CODES

925 AND 926 CODES

927 AND 928 CODES

929 AND 930 CODES

931 AND 932 CODES

933 AND 934 CODES

935 AND 936 CODES

937 AND 938 CODES

939 AND 940 CODES

941 AND 942 CODES

943 AND 944 CODES

945 AND 946 CODES

947 AND 948 CODES

949 AND 950 CODES

951 AND 952 CODES

953 AND 954 CODES

955 AND 956 CODES

957 AND 958 CODES

959 AND 960 CODES

961 AND 962 CODES

963 AND 964 CODES

965 AND 966 CODES

967 AND 968 CODES

969 AND 970 CODES

971 AND 972 CODES

973 AND 974 CODES

975 AND 976 CODES

977 AND 978 CODES

979 AND 980 CODES

981 AND 982 CODES

983 AND 984 CODES

985 AND 986 CODES

987 AND 988 CODES

989 AND 990 CODES

991 AND 992 CODES

993 AND 994 CODES

995 AND 996 CODES

997 AND 998 CODES

999 AND 1000 CODES

1001 AND 1002 CODES

1003 AND 1004 CODES

1005 AND 1006 CODES

1007 AND 1008 CODES

1009 AND 1010 CODES

1011 AND 1012 CODES

1013 AND 1014 CODES

1015 AND 1016 CODES

1017 AND 1018 CODES

1019 AND 1020 CODES

1021 AND 1022 CODES

1023 AND 1024 CODES

1025 AND 1026 CODES

1027 AND 1028 CODES

1029 AND 1030 CODES

1031 AND 1032 CODES

1033 AND 1034 CODES

1035 AND 1036 CODES

1037 AND 1038 CODES

1039 AND 1040 CODES

1041 AND 1042 CODES

1043 AND 1044 CODES

1045 AND 1046 CODES

1047 AND 1048 CODES

1049 AND 1050 CODES

1051 AND 1052 CODES

1053 AND 1054 CODES

1055 AND 1056 CODES

1057 AND 1058 CODES

1059 AND 1060 CODES

1061 AND 1062 CODES

1063 AND 1064 CODES

1065 AND 1066 CODES

1067 AND 1068 CODES

1069 AND 1070 CODES

1071 AND 1072 CODES

1073 AND 1074 CODES

1075 AND 1076 CODES

1077 AND 1078 CODES

1079 AND 1080 CODES

1081 AND 1082 CODES

1083 AND 1084 CODES

1085 AND 1086 CODES

1087 AND 1088 CODES

1089 AND 1090 CODES

1091 AND 1092 CODES

1093 AND 1094 CODES

1095 AND 1096 CODES

1097 AND 1098 CODES

1099 AND 1100 CODES

1101 AND 1102 CODES

1103 AND 1104 CODES

1105 AND 1106 CODES

1107 AND 1108 CODES

1109 AND 1110 CODES

1111 AND 1112 CODES

1113 AND 1114 CODES

1115 AND 1116 CODES

1117 AND 1118 CODES

1119 AND 1120 CODES

1121 AND 1122 CODES

1123 AND 1124 CODES

1125 AND 1126 CODES

1127 AND 1128 CODES

1129 AND 1130 CODES

1131 AND 1132 CODES

1133 AND 1134 CODES

1135 AND 1136 CODES

1137 AND 1138 CODES

1139 AND 1140 CODES

1141 AND 1142 CODES

1143 AND 1144 CODES

1145 AND 1146 CODES

1147 AND 1148 CODES

1149 AND 1150 CODES

1151 AND 1152 CODES

1153 AND 1154 CODES

1155 AND 1156 CODES

1157 AND 1158 CODES

1159 AND 1160 CODES

1161 AND 1162 CODES

1163 AND 1164 CODES

1165 AND 1166 CODES

1167 AND 1168 CODES

1169 AND 1170 CODES

1171 AND 1172 CODES

1173 AND 1174 CODES

1175 AND 1176 CODES

1177 AND 1178 CODES

1179 AND 1180 CODES

1181 AND 1182 CODES

1183 AND 1184 CODES

1185 AND 1186 CODES

1187 AND 1188 CODES

1189 AND 1190 CODES

1191 AND 1192 CODES

1193 AND 1194 CODES

1195 AND 1196 CODES

1197 AND 1198 CODES

1199 AND 1200 CODES

1201 AND 1202 CODES

1203 AND 1204 CODES

1205 AND 1206 CODES

1207 AND 1208 CODES

1209 AND 1210 CODES

1211 AND 1212 CODES

1213 AND 1214 CODES

1215 AND 1216 CODES

1217 AND 1218 CODES

1219 AND 1220 CODES

1221 AND 1222 CODES

1223 AND 1224 CODES

1225 AND 1226 CODES

1227 AND 1228 CODES

1229 AND 1230 CODES

1231 AND 1232 CODES

1233 AND 1234 CODES

1235 AND 1236 CODES

1237 AND 1238 CODES

1239 AND 1240 CODES

1241 AND 1242 CODES

1243 AND 1244 CODES

1245 AND 1246 CODES

1247 AND 1248 CODES

1249 AND 1250 CODES

1251 AND 1252 CODES

1253 AND 1254 CODES

1255 AND 1256 CODES

1257 AND 1258 CODES

1259 AND 1260 CODES

1261 AND 1262 CODES

1263 AND 1264 CODES

1265 AND 1266 CODES

1267 AND 1268 CODES

1269 AND 1270 CODES

1271 AND 1272 CODES

1273 AND 1274 CODES

1275 AND 1276 CODES

1277 AND 1278 CODES

1279 AND 1280 CODES

1281 AND 1282 CODES

1283 AND 1284 CODES

1285 AND 1286 CODES

1287 AND 1288 CODES

1289 AND 1290 CODES

1291 AND 1292 CODES

1293 AND 1294 CODES

1295 AND 1296 CODES

1297 AND 1298 CODES

1299 AND 1300 CODES

1301 AND 1302 CODES

1303 AND 1304 CODES

1305 AND 1306 CODES

1307 AND 1308 CODES

1309 AND 1310 CODES

1311 AND 1312 CODES

1313 AND 1314 CODES

1315 AND 1316 CODES

1317 AND 1318 CODES

1319 AND 1320 CODES

1321 AND 1322 CODES

1323 AND 1324 CODES

1325 AND 1326 CODES

1327 AND 1328 CODES

1329 AND 1330 CODES

1331 AND 1332 CODES

1333 AND 1334 CODES

1335 AND 1336 CODES

1337 AND 1338 CODES

1339 AND 1340 CODES

1341 AND 1342 CODES

1343 AND 1344 CODES

1345 AND 1346 CODES

1347 AND 1348 CODES

1349 AND 1350 CODES

1351 AND 1352 CODES

1353 AND 1354 CODES

1355 AND 1356 CODES

1357 AND 1358 CODES

1359 AND 1360 CODES

1361 AND 1362 CODES

1363 AND 1364 CODES

1365 AND 1366 CODES

1367 AND 1368 CODES

1369 AND 1370 CODES

1371 AND 1372 CODES

1373 AND 1374 CODES

1375 AND 1376 CODES

1377 AND 1378 CODES

1379 AND 1380 CODES

1381 AND 1382 CODES

1383 AND 1384 CODES

1385 AND 1386 CODES

1387 AND 1388 CODES

1389 AND 1390 CODES

1391 AND 1392 CODES

1393 AND 1394 CODES

1395 AND 1396 CODES

1397 AND 1398 CODES

1399 AND 1400 CODES

1401 AND 1402 CODES

1403 AND 1404 CODES

1405 AND 1406 CODES

1407 AND 1408 CODES

1409 AND 1410 CODES

1411 AND 1412 CODES

1413 AND 1414 CODES

1415 AND 1416 CODES

1417 AND 1418 CODES

1419 AND 1420 CODES

1421 AND 1422 CODES

1423 AND 1424 CODES

1425 AND 1426 CODES

1427 AND 1428 CODES

1429 AND 1430 CODES

1431 AND 1432 CODES

1433 AND 1434 CODES

1435 AND 1436 CODES

1437 AND 1438 CODES

1439 AND 1440 CODES

1441 AND 1442 CODES

1443 AND 1444 CODES

1445 AND 1446 CODES

1447 AND 1448 CODES

1449 AND 1450 CODES

1451 AND 1452 CODES

1453 AND 1454 CODES

1455 AND 1456 CODES

1457 AND 1458 CODES

1459 AND 1460 CODES

1461 AND 1462 CODES

1463 AND 1464 CODES

1465 AND 1466 CODES

1467 AND 1468 CODES

1469 AND 1470 CODES

1471 AND 1472 CODES

1473 AND 1474 CODES

1475 AND 1476 CODES

1477 AND 1478 CODES

1479 AND 1480 CODES

1481 AND 1482 CODES

1483 AND 1484 CODES

1485 AND 1486 CODES

1487 AND 1488 CODES

1489 AND 1490 CODES

1491 AND 1492 CODES

1493 AND 1494 CODES

1495 AND 1496 CODES

1497 AND 1498 CODES

1499 AND 1500 CODES

1501 AND 1502 CODES

1503 AND 1504 CODES

1505 AND 1506 CODES

1507 AND 1508 CODES

1509 AND 1510 CODES

1511 AND 1512 CODES

1513 AND 1514 CODES

1515 AND 1516 CODES

1517 AND 1518 CODES

1519 AND 1520 CODES

1521 AND 1522 CODES

1523 AND 1524 CODES

1525 AND 1526 CODES

1527 AND 1528 CODES

1529 AND 1530 CODES

1531 AND 1532 CODES

1533 AND 1534 CODES

1535 AND 1536 CODES

1537 AND 1538 CODES

1539 AND 1540 CODES

1541 AND 1542 CODES

1543 AND 1544 CODES

1545 AND 1546 CODES

1547 AND 1548 CODES

1549 AND 1550 CODES

1551 AND 1552 CODES

1553 AND 1554 CODES

1555 AND 1556 CODES

1557 AND 1558 CODES

1559 AND 1560 CODES

1561 AND 1562 CODES

1563 AND 1564 CODES

1565 AND 1566 CODES

1567 AND 1568 CODES

1569 AND 1570 CODES

1571 AND 1572 CODES

1573 AND 1574 CODES

1575 AND 1576 CODES

1577 AND 1578 CODES

1579 AND 1580 CODES

1581 AND 1582 CODES

1583 AND 1584 CODES

1585 AND 1586 CODES

1587 AND 1588 CODES

1589 AND 1590 CODES

1591 AND 1592 CODES

1593 AND 1594 CODES

1595 AND 1596 CODES

1597 AND 1598 CODES

1599 AND 1600 CODES

1601 AND 1602 CODES

1603 AND 1604 CODES

1605 AND 1606 CODES

1607 AND 1608 CODES

1609 AND 1610 CODES

1611 AND 1612 CODES

1613 AND 1614 CODES

1615 AND 1616 CODES

1617 AND 1618 CODES

1619 AND 1620 CODES

1621 AND 1622 CODES

1623 AND 1624 CODES

1625 AND 1626 CODES

1627 AND 1628 CODES

1629 AND 1630 CODES

1631 AND 1632 CODES

1633 AND 1634 CODES

1635 AND 1636 CODES

1637 AND 1638 CODES

1639 AND 1640 CODES

1641 AND 1642 CODES

1643 AND 1644 CODES

1645 AND 1646 CODES

1647 AND 1648 CODES

1649 AND 1650 CODES

1651 AND 1652 CODES

1653 AND 1654 CODES

1655 AND 1656 CODES

1657 AND 1658 CODES

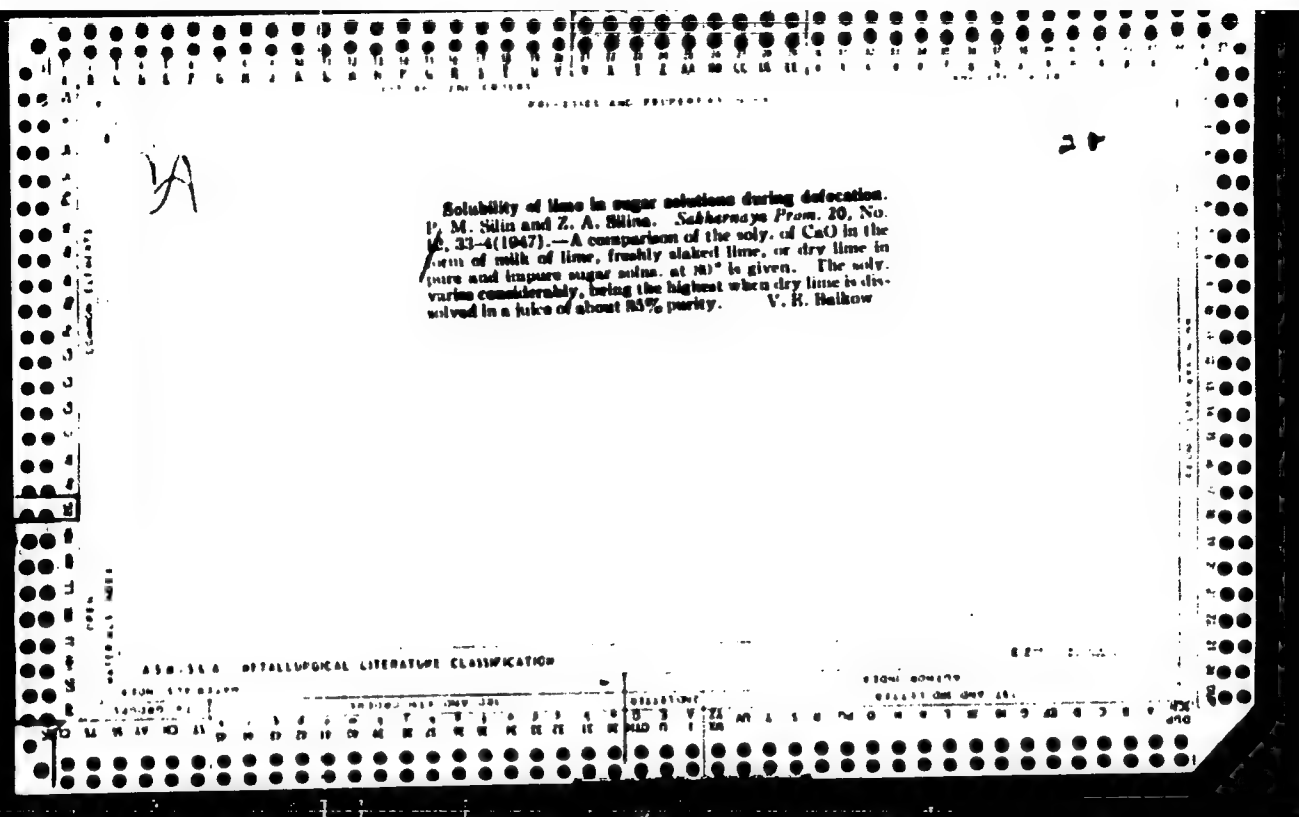
1659 AND 1660 CODES

1661 AND 1662 CODES

1663 AND 1664 CODES

[illegible]

<p>FUNCTIONS AND PROPERTIES INDEX</p> <p>28</p>	
<p>Function of nonsugars in sirup formation P. M. Salin and Z. A. Silina. <i>Sakharnaya Prom.</i> 19, No. 6, 22-3 (1946).—The basic formula for calcg. the sirup-forming ability is $m_0 = q_0 / (100 - q_0)$, where m_0 is the sirup-forming coeff. and q_0 is the quality index of the sirup (cf. Salin, <i>Khimicheskii kontrol' svkhasakharnogo pro-</i> <i>izvedeniya</i> 1936, p. 170). To the sirup was added a quantity (n) of a nonsugar, e.g. NaCl. On this mixt. were detd q_1 analogous to q_0 and m_1 analogous to m_0. The sirup-forming coeff. (m) of the added substance was calcd. from the equation $m = m_0 + 100/n \cdot (m_1 - m_0)$. The m for various substances was detd. It ranges from 0.10 for invert sugar to 4.61 for NaOH. Some of the Ca salts tested had neg. m. The cations tested had different m values, but for any one cation m was detd. by its anion. In decreasing order of m the tested cations were $K > N > Ca$. The decreasing order for the tested anions was $OH, CO_3, CH_3COO, Cl, glutamate, tyrosine, lactate, decompn.$ products of invert sugar, and NO_3. The nonsugars can be divided into 3 groups: (1) strong sirup formers ($m > 2.4$) comprising alkali metal hydroxides, carbonates, acetates, and chlorides; (2) medium sirup formers ($m = 1.1-0.8$) including betaine, K and Na salts of amino acids and lactic acid; and (3) weak sirup formers (m less than 0.8) contg invert sugar and salts of its decompn. products, Ca salts and $NaNO_3$. M. Hosh</p>	
<p>ASB-55A METALLURGICAL LITERATURE CLASSIFICATION</p>	
<p>INDEX SYMBOLS</p>	
<p>CLASSIFIED BY GPO 400</p>	
<p>QUALITY INDEX</p>	
<p>001155 000 000 101</p>	



TEST AND THE SAMPLE

PROCEDURES AND PROPERTIES HERE

28

Color determination of sugar P. M. Selin and
Annals. Pharm. 22, No. 9, 51914. The correct
 formula for detn. of color in a Stammer colorimeter with
 normal glass is: $N = (100 \times 100) (2M \times B \times d)$, where
 M = height of a soln., B = Brin, and d = sp. gr.
 V. E. Rathow.

ASB-114 METALLURGICAL LITERATURE CLASSIFICATION

ISSUED 1914

COLLECTION

ISSUED 1914

100000 11

ISSUED 1914

COLLECTION

ISSUED 1914

100000 11

ISSUED 1914

COLLECTION

ISSUED 1914

1st and 2nd (1948)		PROCESSING AND PROPERTIES INDEX		1st and 2nd (1948)	
A				28	
<p>Laboratory determination of the technological value of sugar beet. P. M. Slin. <i>Gaz. Chuvstvenno</i> 88, 69-70, 131-47(1948); <i>Sugar Ind. Abstracts</i> 10, No. 7, 70-1 (1948).—Sugar factory analytical data required are: the phys. properties of the beets (not to be woody), non-sugar content (should be low), and sugar, N, and pectin analyses. Brief details are given of sugar losses at various stages of manual, the theory of molasses formation, lab. analyses required, and purity coeff. detn. Lab. app. is described, with diagrams, for slicing, diffusion, preliminary and main defecation and 1st and 2nd satn., evapn. and boiling to massecuite, crystal. and 2nd massecuite production. Methods of analysis at various stages are outlined, with the calcs. needed to derive the data required. The effects on the results of the method of diffusion, temp., amt. of lime used, time of defecation and saturation, etc., are discussed. A comparison of lab. and factory results shows good agreement.</p> <p>R. D. H.</p>					
<p>ADV-514 METALLURGICAL LITERATURE CLASSIFICATION</p>					
10000 1100000		100000 1100000		100000 1100000	
10000 1100000		100000 1100000		100000 1100000	

11. 11. 11. 11. 11. 11.

Khimicheskiy kontrol' sverokharaktera proizvodstva (Chemical control of sugar beet production) Moskva, Pishchepronizdat, 1949. 226 p. illus., diagrs., tables. "Literatura":
n. (111)

N/5

63.841

185

SILIN, P. M.

Chemical Abst.
Vol. 48 No. 3
Feb. 10, 1954
Sugar, Starch, and Gums

①
Simplified calculation of the evaporation in a sugar factory. P. M. Silin. *Trudy Leningrad Tekhnol. Univ. Pishchec. Prom. I*, (IX), 40-21(1949).—Formulas and tables are given. V. E. Balkov

SILIN, P.M.

29110

Koyefitsiyent nasyslchyeniya I pycryesyshch - yeniya. Sakhar. Prom - st'm
1949, No. 8, C. 20-22

SO: LETOPIS' NO. 34

4

21

(Obtaining diffusion juices. P. M. Silin. Sakharova
Prom. 26, No. 11, 17-23 (1950). V. E. Baibov

SILIN, P.M., professor, doktor tekhnicheskikh nauk.

Efficient methods for evaporating and crystallizing massecuite

in beet sugar factories. Trudy MTIPP 2:61-66, 152. (MIRA 9:2)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001550610008-5"

1. Zasluzhennyy deyatel' nauki i tekhniki RSFSR.
(Sugar industry)

Saturation coefficient is independent of temperature P. S. Anur
 Sula (Sulak. Prom., 1952, No. 3, 19-21, Sug. Ind. Indr., 1952,
 16, 97) -- The linear relation of the saturation coeff. (α) to the
 non-sugar : water ratio (n), for values of n of 1.5-3, was previously
 shown (cf. B., 1950, 111, 462). It is now shown that when values
 are calculated from apparent purity data, the graph of α against
 n is a single curve for syrups at all temp. at 40-80°. The usefulness
 of this curve in sugar boiling control is discussed. [Note. In the
 previous paper, α stood for the ratio non-sugars : water, and H
 for sugar content; in the present paper, H (Russian capital "a")
 is used for the ratio, but α is retained in this abstract for continuity
 and clarity.] P. S. Anur

SILIN, P.M.

- (a) Estimating composition of final massecuite. N. P. Silina.
(b) Crystallization of final massecuite. P. M. Silin (*Sukker. Fys.*, 1953, No. 9, 14-16, 17-23).—(a) The permissible purity and Briz are derived from the "standard" purity of the molasses, the min. cooling temp., and the max. permissible η of the massecuite, by means of simple equations. Centrifuge makers should indicate the max. permissible η ; readings of η should be made standard practice in sugar factories.
(b) Examples based on Silina's equations (cf. Abstr. A) are dis-

SILIN, P. M.

C. A. V-48
Jan 10, 1954
Sugar, Starch
and Gums

Control of crystallization of a low grade massecuite. P. M. Silin (Technol. Inst. Food Ind., Moscow). *Sakharnaya Prom.* 27, No. 1, 16-18(1953).—Instead of the complicated method for detn. of normal purity of final molasses, S. introduces a table which permits the calcn. of normal purity of final molasses samples that can be taken directly at the centrifugal station.
V. E. Baikow

2

SILIN, P.M., professor.

Increase in scientific and technical literature on sugar production in
Czechoslovakia. Sakh.prom. 27 no.4;42-43 Ap '53. (MLRA 6:6)
(Czechoslovakia--Sugar industry)

SILIN, P.M.; SILINA, N.P.

True supersaturation in the crystallization of second product fillmass.
Sakh.prom. 27 no.6:4-9 Je '53. (MLRA 6:6)

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti.
(Sugar industry)

SILIN, P. M.

Chemical Abst.
Vol. 48 No. 3
Feb. 10, 1954
Sugar, Starch, and Gum

③
Viscosity of molasses. P. M. Silin and Z. A. Silina
(Moscow Technol. Inst. Food Ind.). *Sakharnaya Prom.*
27, No. 7, 21-7(1953).—Viscosity of molasses prevents
crystn. in low-grade massecuites and, therefore, increases
sucrose losses. It is advisable to introduce in the lab.
control detn. of molasses viscosity. The normal purity and
degree Brix of final molasses depend on viscosity and can
be calcd. from nomographs shown in this article.
V. B. Baikov

DRONOV, S.F. [author]; LEPESHKIN, inzhener; SILIN, P., professor [reviewers].

"Dynamic theory of the extraction of sugar from beets by the diffusion method." S.F.Dronov. Reviewed by Lepeshkin, P.Silin. Sakh.prom. 27
no.8:44-47 Ag '57. (MLRA 6:8)

(Sugar industry) (Dronov, S.F.)

Viscosity of molasses. P. M. Slinn and Z. A. Slinn. Z.
Zuckerind. 4(79), 160-60(1904). Abridgment in German.
See C.A. 48, 17106. A. Van Hook

CH
①

SILIN, P.M.

Theory of the operation of diffusion apparatus. Sakh.prom. 28
no.7:29-31 '54. (MIRA 8:1)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promysh-
lennosti.

(Sugar industry) (Diffusers)

Silin, P.M.

4

USSR • ✓ Evaluation and estimation of capacity of diffusion appa-
ratus. P. M. Silin (Technol. Inst. Fuel Ind., Moscow).
Sukharkovo Prilozh. 28, No. 8, 8-11 (1954). — An experimen-
tally obtained coeff. can serve as indicator of battery per-
formance. Discussion and formulas are shown. V. B. Baikov

PDW

SILIN, P.M.

ISSR

Purification of diffusion juice with return of unfiltered juice from first carbonation to predefecation. P. M. Silin (Technol. Inst. Food Ind., Moscow). *Sakharnyye Pr.* 29, No. 2, 6-12(1955).—Different methods of predefecation and description of expts. and methods of testing conducted simultaneously in 3 beet-sugar factories in U.S.S.R. are reviewed. Important factors for comparing different methods of purification were filterability and rate of sedimentation of juices of the first carbonation. Unfiltered juice can be pre-served at room temp. for 4 hrs. without noticeable effect upon filterability and sedimentation, and the alk. of a juice of first carbonation can vary from 0.05 to 0.10% CaO. The rate of filtration increases in inverse proportion to viscosity, which decreases with temp. increase, and the rate of sedimentation increases even faster than decrease of viscosity. However, above 80° decomposition of amides occurs, evolving NH₃ gas which retards sedimentation. The return of unfiltered first carbonation juice to predefecation has an excellent effect upon the growth of *E. coli* and increases

P. M. ...
 the rate of filtration by 2.2 times and the rate of sedimentation 4 times. An excessive amt. of returned juice increases filterability of juices, but decreases their quality. The max. amt. of returned juice should not exceed 100% in relation to diffusion juice. Besides returning juices from the first carbonation, progressive predefecation must be assured, where milk of lime is gradually added, and the alk. of filtered juice from progressive predefecation should contain 0.08% CaO. Comparative expts. showed that progressive predefecation of diffusion juices increases rates of filtration and sedimentation by 44% and 64%, resp. The best results can be expected when all returned juice is mixed with the diffusion juice prior to progressive predefecation, and new particles can deposit on the floc already formed. The following method of predefecation was developed: Diffusion juice heated to 90° is pumped to predefecation where it is mixed with 70-100% by vol. of carbonated juice from the first carbonation. The length of predefecation is 5 min. and milk of lime is added to the predefecator in amt. of 0.3-0.4% on the wt. of beets. From the predefecator, the juice enters the defecator by gravity with a calcd. retention time of 10 min. The defecator is equipped with an agitator which makes 30 r.p.m. Milk of lime is added uniformly to the total amt. of 2-2.5% on the wt. of beets. After defecation is completed the juice enters the carbonation tank from which part of the juice (roughly half) is filtered and the other portion is pumped back to predefecation. V. B. B.

SILIN, P.M.

3

Obtaining diffusion juice. P. M. Silin (Technol. Inst. Fuel Ind., Moscow). *Tekhnicheskaya* 29, No. 3, 7-12 (1953). - S. compares his theory and formula of the diffusion process with that of Oplatka, *et al.* (C.A. 45, 10020d; 47, 7401f) and concludes that Oplatka's formula is almost identical with his own. Formulas and curves are shown.

V. B. Balkov

AB Jan

5

SILIN, P.M.; SILINA, N.P.

Control of the basic technological processes. Sakh.prom.29 no.5:
12-16 '55. (MLRA 8:11)

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti
(Sugar industry)

BUDNIKOV, P.; ~~SILIN, P.~~

Convention of chemical technologists in Slovakia. Zhur. prikl.
khim. 29 no.12:1896-1898 D '56. (MIRA 10:6)
(Banska Stiavnica, Czechoslovakia--Chemistry, Technical--Congresses)

SILIN, P.M., Professor.

Conference on beet growing and sugar manufacture in Prague in 1955.
Sakh.prom.30 no.3:10-13 Nr '56. (MIRA 9:7)
(Prague--Sugar industry--Congresses)

SILIN, P. professor.

"Fundamentals of Sugar Production". M. Drakhevskaja, V. Steglik and E. Shandera. Reviewed by P. Silin. Sakh. prom. 30 no. 5:78-79-80 '56.
(Sugar industry)(Drakhevskaja, M.)(Steglik, V.)(Shandera, E.)(NIRA 9:9)

SILIN, P., professor; LEPESHKIN, I., inzhener; SHAKIN, A., inzhener.

The anniversary of an engineer Doctor A. Mirchev. Sakh.prom. 30
no.7:72 J1 '56. (MLRA 9:11)

(Mirchev, A.)

SILIN, P.M.

New nomogram on the operation of diffusion apparatus and its practical application. Sakh.prom.30 no.11:7-14 N '56. (MLRA 10:2)

1. Moskovskiy tekhnologicheskij institut pishchevoy promyshlennosti.
(Sugar machinery)

SILIN, P.M., professor.

Eliminating production difficulties ("Producing and processing
sugar beets without difficulty and losses." Reviewed by P.M.
Silin). Sakh.prom.30 no.11:79 N '56. (MLRA 10:2)
(Sugar industry)

SILIN, P., professor; LEPESHKIN, I., inzhener; SHAKIN, A., inzhener.

Sixtieth birthday of Academician I. Vashatko. Sakh. prom. 31
no. 3:67 Mr '57. (MIRA 10:4)
(Vasatko, I., 1897-)

SILIN, P.M.

Suggestions concerning the terminology used in the sugar industry.
(MLBA 10:6)
Sakh. prom. 31 no.5:19-20 My '57.

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti.
(Sugar industry--Terminology)

effect of the composition of water supplied to sugar refineries
on technological processes. Dokh. proc. 31 no.7:15-16 J1 '57.
(MLRA 10:8)

2. Lebedevskiy tekhnologicheskii institut mshchevoy promyshlennosti.
(Water--analysis) (sugar industry)

~~SILIN, P.~~

I.I. Skindirov's simple method for determination of molasses
quality. Sakb.prom. 31 no.7:75-76 J1 '57. (MIRA 10:8)
(Molasses)

SILIN, P. M.

SILIN, P.M.

Recollections of student days. Sakh. prom. 31 no.11:51-52 N '57.
(MIRA 11:1)

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti.
(Students)